Case 3705 – Mantis limbata Brullé, 1838 (currently Ameles limbata) (Mantodea, MANTIDAE, AMELINAE): proposed conservation of the specific name

Frank Wieland

Pfalzmuseum für Naturkunde – POLLICHIA-Museum, Hermann-Schäfer-Str. 17, 67098 Bad Dürkheim, Germany (e-mail: fwielan@googlemail.com)

Julia Goldberg

Mühlbergstr. 13, 67693 Fischbach, Germany (e-mail: jule.goldberg@gmail.com)

Kai Schütte

Universität Hamburg, Zoologisches Institut, Abt. Tierökologie und Naturschutz und Centrum für Naturkunde, Zoologisches Museum, Martin-Luther-King-Platz 3, 20146 Hamburg, Germany (e-mail: kai.schuette@uni-hamburg.de)

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Abstract. The purpose of this application, under Article 23.9.5 of the Code, is to conserve the specific name *Mantis limbata* Brullé, 1838 (Insecta, Mantodea). It is a junior primary homonym of *Mantis limbata* Hahn, 1835 (Insecta, Mantodea). *Mantis limbata* Brullé, 1838 is currently assigned to the genus *Ameles* Burmeister, 1838 (MANTIDAE, AMELINAE), whereas *Mantis limbata* Hahn, 1835 is assigned to the genus *Stagmomantis* Saussure, 1869 (MANTIDAE, STAGMOMANTINAE). Both names have not been considered to be conspecific after 1899. Therefore, we propose to suppress the replacement name *Ameles canaria* Koçak & Kemal, 2008, that has been suggested for the junior primary homonym, for the purposes of priority in order to avoid nomenclatural confusion within the subfamily AMELINAE.

Keywords. Nomenclature; taxonomy; Insecta; Mantodea; MANTIDAE; AMELINAE; STAG-MOMANTINAE; Ameles; Mantis; Stagmomantis; Ameles canaria; Ameles limbata; Mantis limbata; Stagmomantis limbata; Canary Islands; Central America; North America;

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mantis.

1. Brullé (1838, pl. 5, caption) described *Mantis limbata* from the Canary Islands. The written description was published in Brullé (1839, p. 76) but the name was made available from the figure in combination with the name on plate 5, that was published in 1838 (Stearn, 1937, p. 55; see also Wieland et al., 2014, p. 95 for a detailed discussion of the year of publication). As the species was described before 1931 with a clear indication (plate and name), the provisions of Article 12 of the Code are met and the name was made available in 1838.

2. Mantis limbata Brullé, 1838 is a junior primary homonym of Mantis limbata Hahn, 1835 (pl. "Gen. Mantis, Tab. A", fig. 2), a species described from a male specimen collected in Mexico.

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3. *Mantis limbata* Brullé, 1838 was classified within *Mantis* until 1892. Krauss (1892, p. 166) assigned *limbata* Brullé to the genus *Ameles* Burmeister, 1838. Kirby (1904, p. 231) listed it under the genus *Parameles* Saussure, 1869, which was subsequently synonymised with *Ameles* Burmeister, 1838 by Giglio-Tos (1927, p. 158). *Mantis limbata* Brullé, 1838 has been classified as *Ameles limbata* (Brullé, 1838) ever since. The species is endemic to the Canary Islands where it has been reported from Tenerife and La Palma and possibly from Gran Canaria (see review in Wieland et al., 2014).

4. *Mantis limbata* Hahn, 1835 (pl. "Gen. *Mantis*, Tab. A", fig. 2) was classified within *Mantis* until Saussure (1873, p. 249) transferred it to *Stagmomantis* Saussure, 1869. Giglio-Tos (1917, p. 55, 1927, p. 385) assigned it to *Auromantis* until Beier (1935, p. 95) reassigned it to *Stagmomantis* as *Stagmomantis* (*Auromantis*) *limbata*. *Mantis limbata* Hahn, 1835 has been assigned to *Stagmomantis* ever since. *Stagmomantis limbata* has been reported from the United States of America, Mexico, El Salvador and Venezuela (Ehrmann 2002, p. 332; Agudelo et al., 2007, p. 123; Maxwell, 2014, p. 516, table 1). The two species have not been considered to be congeneric after 1899, therefore the conditions of Article 23.9.5 are met.

5. Gurney (1947, p. 251) was the first author to recognise the homonymy. He was aware that a second species of *Ameles, Ameles gracilis* (Brullé, 1838), had been described from the Canary Islands. Gurney (1947) was uncertain about a putative synonymy of the two *Ameles* species. Therefore, he decided to not take nomenclatural action until future research on morphological variability and the validity of *Ameles limbata* could be ascertained. Gurney (1947) merely stated that if *Ameles limbata* was indeed a valid species and not a synonym of *Ameles gracilis* or another *Ameles* species from the African mainland, the junior primary homonym would have to be replaced.

6. The next author to discuss the homonymy was Kaltenbach (1979, p. 523) who mentioned the problem in his review of the Canary Island Mantodea fauna. However, Kaltenbach (1979) did not see reason to introduce a replacement name because *limbata* Brullé had been transferred to another genus in 1904 (actually 1892, see paragraph 3) and *limbata* Hahn was transferred to *Stagmomantis* in 1873 (Kaltenbach mentioned 1872 for Saussure's work but the correct publication date was 1873; see Crosnier & Clark, 1998). As both species were not only assigned to different genera but even to different subfamilies, Kaltenbach (1979) argued, no nomenclatural action was required.

7. Otte & Spearman (2005, p. 145) considered Ameles limbata (Brullé, 1838) as a subjective synonym of Ameles gracilis (Brullé, 1838) (therein assigned to Brullé 1840,

but the true date of publication is 1838; see paragraph 1). They referred to Kaltenbach (1979, p. 523), who had allegedly synonymised the two species. This was a misinterpretation. Kaltenbach (1979) treated both species as valid. Instead, Kaltenbach (1979, pp. 517, 518) merely mentioned that he had compared several specimens that had been assigned to *Ameles limbata* by Chopard (1942; 1954) and had found that they actually belonged to *Ameles gracilis* (see Wieland et al., 2014, p. 84 for a detailed discussion). The synonymy erroneously listed by Otte & Spearman (2005, p. 145) was mentioned by Battiston et al. (2010, p. 74). However, the authors simply followed Otte & Spearman's catalogue (as becomes evident from the incorrect publication date of *Ameles gracilis* in both publications) and did not provide any reasons for this decision. The assumption of a putative synonymy of *Ameles gracilis* and *Ameles limbata* was neither shared in previous nor in subsequent publications (e.g. Kirby, 1904, p. 231; Chopard, 1942, p. 4; 1954, p. 10; Kaltenbach, 1979, p. 523; Roy, 1987, p. 118; García & Oromí, 1999, p. 103; Bland, 2001, table 1; García-Becerra et al., 2001, p. 151; Ehrmann, 2002, p. 59; Agabiti et al., 2010, p. 4; see Wieland et al., 2014, table 3 for a complete literature review).

8. Koçak & Kemal (2008, p. 8) did not consider Article 23.9.5 of the Code by which the discovery of a primary homonymy must not automatically result in the proposal of a replacement name for the junior homonym.

9. Koçak & Kemal (2008, p. 8) decided to act on the *limbata*-problem. They argued that: a) *Mantis limbata* Brullé, 1838 was a junior primary homonym of *Mantis limbata* Hahn, 1835 (in their publication erroneously spelled "de Haan"); b) *Ameles limbata* (Brullé, 1838) was taxonomically distinct from other *Ameles* species; and c) Kaltenbach (1979, p. 523) had not acted correctly with regard to the rules of homonymy of the Code. However, Koçak & Kemal (2008, p. 8) did not specify which provisions of the Code were violated or ignored. Instead, they proposed the name *Ameles canaria* Koçak & Kemal, 2008 as a new replacement name for *A. limbata* (Brullé, 1838).

10. As *Ameles limbata* (Brullé, 1838) and *Stagmomantis limbata* (Hahn, 1835) are highly distinct from each other (morphologically, biogeographically and taxonomically) and have not been considered to be congeneric after 1899, the requirements of Article 23.9.5 of the Code are fully met. Therefore, there is no need for the use of a replacement name. On the contrary: It merely adds to the confusion of the Amelinae taxonomy (Wieland et al., 2014, p. 95), and might add to nomenclatural instability, without being of any practical value.

11. Regarding the type material of the species mentioned in the present case, only the whereabouts of the type material Mantis limbata Hahn, 1835 are known. The male holotype is housed in the collection of the Museum für Naturkunde (MfN) in Berlin, Germany (Ehrmann, 2002, p. 332). The male holotype of Ameles limbata (Brullé, 1838) and the female holotype of Ameles gracilis (Brullé, 1838) are supposedly housed in the collection of the Muséum National d'Histoire Naturelle (MNHN) in Paris, France (Ehrmann, 2002, p. 59). However, the MNHN collection has four specimens of Ameles gracilis (none of which is the holotype) and no specimens of Ameles limbata (Roy, pers. comm., 2016). The type material of the two species is not located in the collection of the Museo Nacional de Ciencias Naturales in Madrid (MNCN), Spain (París, pers. comm., 2016). They are not present in the Natural History Museum (NHM) in London, United Kingdom (Marshall, 1975), nor in the Muséum d'Histoire Naturelle de Genève (MHNG), Switzerland (Roy & Cuche, 2008). Furthermore, we were unable to locate the Brullé types in the collections of the Naturhistorisches Museum Wien (NHMW) in Vienna, Austria and in the Naturalis Biodiversity Center (RMNH) in Leiden, Netherlands. The fate and whereabouts of the Brullé types have to be thoroughly researched in the future, but this is beyond the scope of the current contribution.

- 12. The International Commission on Zoological Nomenclature is accordingly asked:(1) to use its plenary power to rule that:
 - (a) the specific name *limbata* Brullé, 1838, as published in the binomen *Mantis limbata*, is not invalid by reason of being a junior primary homonym of *Mantis limbata* Hahn, 1835;
- (b) to suppress the specific name *canaria* Koçak & Kemal, 2008, as published in the binomen *Ameles canaria*, for the purposes of the Principle of Priority and the Principle of Homonymy;
- (2) to place on the Official List of Specific Names in Zoology the name *limbata* Brullé, 1838, as published in the binomen *Mantis limbata* Brullé, 1838 with the

endorsement that it is not invalid by reason of being a junior primary homonym of Mantis limbata Hahn, 1835 as ruled in (1)(a);

(3) to place on the Official Index of Rejected and Invalid Specific names in Zoology the name canaria Koçak & Kemal, 2008, as published in the binomen Ameles canaria and suppressed in (1)(b) above.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Secretariat, ICZN, Lee Kong Chian Natural History Museum, 2 Conservatory Drive, Singapore 117377, Republic of Singapore (e-mail: iczn@nus.edu.sg).



Case 3717 – XYLOPHAGIDAE Purchon, 1941 (Mollusca: Bivalvia): proposed emendation of the spelling to XYLOPHAGAIDAE to remove homonymy with XYLOPHAGIDAE Fallén, 1810 (Insecta: Diptera)

Eugene V. Coan

Santa Barbara Museum of Natural History, 2259 Puesta del Sol Road, Santa Barbara, California 93105, U.S.A. (e-mail: genecoan@gmail.com)

James T. Carlton

Maritime Studies Program, Williams College – Mystic Seaport, Mystic, Connecticut 06355, U.S.A. (e-mail: james.t.carlton@williams.edu)

Neal L. Evenhuis

Bernice Pauahi Bishop Museum, 1525 Bernice Street, Honolulu, Hawai'i 96817, U.S.A. (e-mail: neale@bishopmuseum.org)

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Abstract. The purpose of this application, under Articles 29 and 55.3 of the Code, is to remove the homonymy between the family-group names XYLOPHAGIDAE Purchon, 1941 (Mollusca: Bivalvia) and XYLOPHAGIDAE Fallén, 1810 (Insecta: Diptera), which are homonyms due to the similarity of the names of their respective type genera *Xylophaga* Turton, 1822 and *Xylophagus* Meigen, 1803. It is proposed that the stem of the generic name *Xylophaga* be emended to *Xylophaga*- to give XYLOPHAGIDAE, while leaving the fly family name unaltered.

Keywords. Nomenclature; taxonomy; Insecta; Mollusca; Bivalvia; Diptera; XYLOPHAGI-DAE; XYLOPHAGAIDAE; Xylophaga; Xylophagus; Nemotelus cinctus; Teredo dorsalis; fly; wood-boring.

1. Meigen (1803, p. 266) proposed *Xylophagus* in the Diptera (Insecta) including only the single species *Nemotelus cinctus* De Geer, 1776 (p. 183), which is the type species by monotypy. Fallén (1810, p. 5) proposed a family-group name (as "XYLOPHAGEI") based on the genus *Xylophagus* Meigen, 1803 and included two genera: *Sicus* Fabricius, 1798 (p. 547) [non Scopoli, 1763], and *Xylophagus* Meigen, 1803. This family-group name (correctly spelled as XYLOPHAGIDAE in Stephens, 1829, p. 57) is in current use within the Diptera for a group of flies found worldwide comprising 134 species in nine genera (Woodley, 2011).

2. Turton (1822, p. 253) proposed the genus-group name *Xylophaga*, for a group of deep-water wood-boring bivalves, of which the type species is *Teredo dorsalis* Turton, 1819 (p. 185), by monotypy. Purchon (1941) recognized the uniqueness of this genus and proposed a family-group name [as "XYLOPHAGINIDAE" (Purchon, 1941, p. 32)] based on the genus *Xylophaga* Turton, 1822. Whereas some authors (Taki & Habe, 1950) maintained